

**APS Website Showing Wrong Data, Making Incorrect Plan Recommendations****DOCKET #: E-01345A-19-0003**

Dear Commissioners:

The Commission has been persistent in requiring APS to provide pro forma billing data and in ensuring that APS ratepayers, and especially those whose bills have increased more than 9 percent, receive the information they need to adopt their most economical rate plan.

The lack of pro forma billing, an issue raised in Commissioner Olson's letter dated November 12, 2019 (<https://docket.images.azcc.gov/E000003661.pdf>), is just the tip of the iceberg. I want to bring urgent attention to the following conclusion I have reached based on a detailed analysis of two customers' data (attached with confidential information redacted):

***The APS website is showing highly inaccurate data for historical annual costs. The plan comparison methodology is also flawed. And APS is steering customers to the wrong plans saying they are most economical even though they are more expensive by hundreds of dollars annually based on the historical energy usage for the previous 12 months.***

The fact that this wrong information is being provided by APS on its *aps.com/compare* website indicates that a larger, systemic problem exists. Because I don't have a large enough, statistically valid sample of data, determining the issues and judging how widespread the problem is difficult.

Nonetheless, the attached two customer examples raise many disturbing questions: Did some or all the 400,000 customers receive letters and postcards with potentially incorrect information and an untold additional number of customers receive erroneous information online at *aps.com/compare* about their most economical plan? Was urging them to switch to a "recommended" plan based on potentially incorrect calculation of savings? Is the pro forma billing about to be released also at risk of providing inaccurate information?

If so, the targeted outreach to the customers would not only have been unhelpful, but downright harmful. In light of this, I would like to offer these recommendations for your consideration:

1. APS should be asked to immediately cease providing historical billing data and most economical plan recommendations to the customers until further investigation.
2. APS should be asked to preserve all the historical billing data, most economical plan information, and estimated savings amounts it has provided to customers through various channels.
3. APS should be asked to hire an independent auditor, at its own cost, to audit the full functionality of the plan comparison tool, including but not limited to its use of the historical data, the plan comparison methodology along with the accuracy of the savings calculation and most economical plan recommendations. This audit report must be docketed in full.

Sincerely,

Abhay Padgaonkar  
APS Ratepayer

## APS Website Showing Wrong Data, Making Incorrect Plan Recommendations

### Where on the APS website is this information?

<https://www.aps.com/compare>

or

After log in to the customer account: Billing and payment > Billing and usage > View your billing and usage > Compare Plan (Find out if your plan is right for you)

### For Customer #1:

#### What does the APS website show?

The attached "APS Plan Compare - Customer #1 - 10-22-19" screenshots taken on Oct. 22 from the APS rate comparison website page show the following information:

- Under 'Your current plan' the APS website shows "Estimated annual cost **\$1,884.64**" for Saver Choice Max, the current plan.
- Under the "Recommended" banner, it shows that "**Saver Choice**" is the recommended plan with annual savings from switching **\$211.22**.
- It also shows **\$134.99** savings from switching to the **Saver Choice Plus** plan.
- And **\$115.27** savings from switching to the Premier Choice plan.

#### What does the analysis show?

The attached analysis for Customer #1 shows that:

- The estimated annual cost of **\$1,884.64** for the current plan is completely wrong. Based on the data downloaded from the APS website using the "Download usage data" link, the total billed amount for the last 12 months was only **\$1,151.68**.
- The estimated highest monthly bill for the current plan of **\$315.57** is also way off, especially considering that the highest actual bill over the 12 billing cycles was only **\$127.49**.
- The recommendation of the "Saver Choice" plan as the most economical plan with **\$211.22 savings** is completely wrong.
- As the rate comparison between the two plans in the attached 'Cust #1 - R3 vs TOU-E' shows, the opposite, in fact, is true. The Saver Choice plan would be **\$419.01 more expensive** than the Saver Choice Max plan.
- The recommendation that the "Saver Choice Plus" plan would provide **\$134.99 savings** is completely wrong.
- As the rate comparison between the two plans in the attached 'Cust #1 - R3 vs R2' shows, the opposite, in fact, is true. The Saver Choice Plus plan would be **\$195.77 more expensive** than the Saver Choice Max plan.
- The recommendation that the "Premier Choice" plan would provide **\$115.27 savings** is completely wrong.
- As the rate comparison between the two plans in the attached 'Cust #1 - R3 vs R-Basic' shows, the opposite, in fact, is true. The Premier Choice plan would be **\$557.17 more expensive** than the Saver Choice Max plan.



## APS Website Showing Wrong Data, Making Incorrect Plan Recommendations

### For Customer #2:

#### **What does the APS website show?**

The attached "APS Plan Compare - Customer #2 - 10-22-19" screenshots taken on Oct. 22 from the APS rate comparison website page show the following information:

- Under 'Your current plan' it shows "Estimated annual cost **\$1,768.71**" for Saver Choice Max, the current plan.
- Under "Recommended" banner, it shows that "**Saver Choice Plus**" is the recommended plan with annual savings from switching **\$49.54**.

#### **What does the analysis show?**

The attached analysis for Customer #2" shows that:

- The estimated annual cost of **\$1,768.71** for the current plan is completely wrong. Based on the data downloaded from the website using the "Download usage data" link, the total billed amount for the previous 12 months was only **\$1,024.10**.
- The estimated highest monthly bill of **\$329.65** is twice as high compared to the highest, actual bill over the last 12 billing cycles, which was only **\$158.72**.
- The recommendation of the "Saver Choice Plus" plan as the most economical plan with **\$49.54 savings** is completely wrong.
- As the rate comparison between the two plans in the attached 'Cust #2 - R3 vs R2' shows, the opposite, in fact, is true. The Saver Choice Plus plan would be **\$298.76 more expensive** than the current Saver Choice Max plan.

Note: The winter super-off-peak usage was not available in the APS downloaded data. It was created from the hourly interval meter data for super-peak hours of 10a-3p weekdays.

The APS downloaded data also had a discrepancy and showed incorrect usage charge, highlighted in yellow, compared to the actual bills starting June 2019. This analysis is unaffected because billed amounts were analyzed, not usage charges.

#### Note on the rate comparison methodology:

This analysis compares two rate plans (current vs. recommended) for identical annual usage for the previous 12 months. It computes the base bill charges only, excluding any adjustor charges. The analysis then grosses up the difference in base bills for taxes and fees at the appropriate rate for each customer. The reason for excluding adjustor charges is this: The adjustor rates are essentially the same across various rate plans (with a minor exception for LFCR). And when identical usage is applied to the same adjustor rates, it would result in identical adjustor charges that would be a wash in any rate comparison. It means that the computing the difference in base bills, and grossed up for taxes, represents the difference between the two plans being compared.

**PS:** A check of the APS website on **November 13** showed that the numbers and plan recommendations were still incorrect for both customers.



APS Plan Compare - Customer #1 - 10-22-19

Service address



Your current plan is Saver Choice  
Max, but based on your usage data,  
we recommend

Saver Choice

See plan details >

Estimated annual cost

\$1,673.42

Estimated highest  
monthly bill

\$235.15

Annual savings from  
switching\*

\$211.22

Estimated lowest  
monthly bill

\$66.66

Select plan to save

## Cost analysis on all plans

Recommended

### Saver Choice

See plan details >

Estimated lowest monthly bill	Estimated highest monthly bill
\$66.66	\$235.15

Annual savings from switching*	Estimated annual cost
\$211.22	\$1,673.42

Select plan

### Saver Choice Plus

See plan details >

Estimated lowest  
monthly bill

**\$65.72**

Estimated highest  
monthly bill

**\$259.60**

Annual savings from  
switching\*

**\$134.99**

Estimated annual cost

**\$1,749.65**

Select plan

## Premier Choice

See plan details >

Estimated lowest  
monthly bill

**\$72.83**

Estimated highest  
monthly bill

**\$238.69**

Annual savings from  
switching\*

**\$115.27**

Estimated annual cost

**\$1,769.37**

Select plan

## *Your current plan*

### **Saver Choice Max**

**See plan details** >

Estimated lowest  
monthly bill

**\$59.71**

Estimated highest  
monthly bill

**\$315.57**

Estimated annual cost

-

**\$1,884.64**

You're currently on this plan

IMPORTANT: This plan comparison is calculated based on your historical energy usage, including your usage during our previous on-peak time-of-use hours of noon to 7pm, weekdays. The cost estimates do not assume or reflect any changes you might make to reduce your energy use during the on-peak hours for our new time-of-use service plans, which are from 3pm to 8pm, weekdays. Shifting your weekday energy use to before

3pm or after 8pm can help reduce your monthly bill compared to the estimates shown for the new time-of-use plans.

ATTENTION GRANDFATHERED SOLAR CUSTOMERS: Changing your service plan will void the terms of your currently grandfathered service plan, also known as net-metering. Please contact the APS Customer Technology Team if you would like to review your plan options.



# Cust #1 - R3 vs TOU-E

Service address	Bill start date	Bill end date	On-peak kWh	Off-peak kWh	Usage charge	Billed amount	Rate plan	Meter num	Billing days	Super-peak kWh	kWh	Total kWh
	10/18/2018	11/19/2018	57	439	59.21	65.66	Saver Choice Max		32	54	1.1	496
	11/19/2018	12/19/2018	48	330	54.12	60.02	Saver Choice Max		30	50	1.3	378
	12/19/2018	1/22/2019	49	760	82.59	91.59	Saver Choice Max		34	72	1.5	809
	1/22/2019	2/19/2019	83	854	99.14	109.93	Saver Choice Max		28	77	2.6	937
	2/19/2019	3/19/2019	88	817	97.69	108.33	Saver Choice Max		28	69	2.6	905
	3/19/2019	4/18/2019	67	634	80.79	89.59	Saver Choice Max		30	49	2.2	701
	4/18/2019	5/17/2019	42	406	92.48	102.54	Saver Choice Max		29	-	2.9	448
	5/17/2019	6/18/2019	46	685	71.99	77.36	Saver Choice Max		32	-	0.8	731
	6/18/2019	7/19/2019	54	1404	112.28	119.57	Saver Choice Max		31	-	0.9	1458
	7/19/2019	8/19/2019	57	1539	119.78	127.49	Saver Choice Max		31	-	0.9	1596
	8/19/2019	9/19/2019	60	1482	116.98	124.56	Saver Choice Max		31	-	0.9	1542
	9/19/2019	10/21/2019	52	567	69.54	75.04	Saver Choice Max		32	-	1	619
			703	9917	1056.59	1151.68			368	371	18.7	10620

Last 12 months												
Winter Bills			392	3834		\$ 525.12			182	371	11.3	4226
Summer Bills			311	6083		\$ 626.56			186		7.4	6394
Total			703	9917		\$ 1,151.68			368		18.7	10620

		On-peak	Off-peak		Base Bill (excl adj/taxes)			Basic Svc	Super-peak	Demand	
<b>Saver Choice Max (R-3)</b>											
Winter Rates*		\$0.06376	\$ 0.05230					\$ 0.427		\$ 12.239	
Summer Rates*		\$0.08683	\$ 0.05230					\$ 0.427		\$ 17.438	
Winter Charges		\$ 24.99	\$ 200.52		\$ 441.52			\$ 77.71		\$ 138.30	
Summer Charges		\$ 27.00	\$ 318.14		\$ 553.60			\$ 79.42		\$ 129.04	
Total Charges		\$ 51.99	\$ 518.66		\$ 995.12			\$ 157.13		\$ 267.34	

<b>Saver Choice (TOU-E)</b>											
Winter Rates*		\$0.23068	\$ 0.10873					\$ 0.427	\$ 0.032		
Summer Rates*		\$0.24314	\$ 0.10873					\$ 0.427			
Winter Charges		\$ 90.43	\$ 376.53		\$ 556.54			\$ 77.71	\$ 11.87		
Summer Charges		\$ 75.62	\$ 661.40		\$ 816.44			\$ 79.42			
Total Charges		\$ 166.05	\$ 1,037.93		\$ 1,372.98			\$ 157.13	\$ 11.87		

<b>DIFFERENCE between R-3 and TOU-E</b>		Base Bill excluding adj/taxes	\$ (377.86)								
		Including Taxes and Fees	\$ (419.01)								

\*Source: <https://www.aps.com/en/Residential/Service-Plans/Compare-Service-Plans>  
 Super-off-peak data was missing from the APS data download. It was created from the hourly interval meter data.

# Cust #1 - R3 vs R2

Service address	Bill start date	Bill end date	On-peak kWh	Off-peak kWh	Usage charge	Billed amount	Rate plan	Meter num	Billing days	Super-peak kWh	kW	Total kWh
	10/18/2018	11/19/2018	57	439	59.21	65.66	Saver Choice Max		32 -		1.1	496
	11/19/2018	12/19/2018	48	330	54.12	60.02	Saver Choice Max		30 -		1.3	378
	12/19/2018	1/22/2019	49	760	82.59	91.59	Saver Choice Max		34 -		1.5	809
	1/22/2019	2/19/2019	83	854	99.14	109.93	Saver Choice Max		28 -		2.6	937
	2/19/2019	3/19/2019	88	817	97.69	108.33	Saver Choice Max		28 -		2.6	905
	3/19/2019	4/18/2019	67	634	80.79	89.59	Saver Choice Max		30 -		2.2	701
	4/18/2019	5/17/2019	42	406	92.48	102.54	Saver Choice Max		29 -		2.9	448
	5/17/2019	6/18/2019	46	685	71.99	77.36	Saver Choice Max		32 -		0.8	731
	6/18/2019	7/19/2019	54	1404	112.28	119.57	Saver Choice Max		31 -		0.9	1458
	7/19/2019	8/19/2019	57	1539	119.78	127.49	Saver Choice Max		31 -		0.9	1596
	8/19/2019	9/19/2019	60	1482	116.98	124.56	Saver Choice Max		31 -		0.9	1542
	9/19/2019	10/21/2019	52	567	69.54	75.04	Saver Choice Max		32 -		1	619
			703	9917	1056.59	1151.68			368		18.7	10620

<b>Last 12 months</b>												
Winter Bills			392	3834		\$ 525.12			182		11.3	4226
Summer Bills			311	6083		\$ 626.56			186		7.4	6394
Total			703	9917		\$ 1,151.68			368		18.7	10620

	On-peak	Off-peak		Base Bill (excl adj/taxes)			Basic Svc	Super-peak	Demand	
<b>Saver Choice Max (R-3)</b>										
Winter Rates*	\$ 0.06376	\$ 0.05230					\$ 0.427		\$ 12.239	
Summer Rates*	\$ 0.08683	\$ 0.05230					\$ 0.427		\$ 17.438	
Winter Charges	\$ 24.99	\$ 200.52		\$ 441.52			\$ 77.71		\$ 138.30	
Summer Charges	\$ 27.00	\$ 318.14		\$ 553.60			\$ 79.42		\$ 129.04	
Total Charges	\$ 51.99	\$ 518.66		\$ 995.12			\$ 157.13		\$ 267.34	
<b>Saver Choice Plus (R-2)</b>										
Winter Rates*	\$ 0.11017	\$ 0.07798					\$ 0.427		\$ 8.400	
Summer Rates*	\$ 0.13160	\$ 0.07798					\$ 0.427		\$ 8.400	
Winter Charges	\$ 43.19	\$ 298.98		\$ 514.80			\$ 77.71		\$ 94.92	
Summer Charges	\$ 40.93	\$ 474.35		\$ 656.86			\$ 79.42		\$ 62.16	
Total Charges	\$ 84.12	\$ 773.33		\$ 1,171.66			\$ 157.13		\$ 157.08	

<b>DIFFERENCE between R-3 and R-2</b>		Base Bill excluding adj/taxes	\$ (176.54)						
		Including Taxes and Fees	\$ (195.77)						

\*Source: <https://www.aps.com/en/Residential/Service-Plans/Compare-Service-Plans>

### Cust #1 - R3 vs R-Basic

Service address	Bill start date	Bill end date	On-peak kWh	Off-peak kWh	Usage charge	Billed amount	Rate plan	Meter num	Billing day	Super-peak kWh	kW	Total kWh
	10/18/2018	11/19/2018	57	439	59.21	65.66	Saver Choice Max		32	-	1.1	496
	11/19/2018	12/19/2018	48	330	54.12	60.02	Saver Choice Max		30	-	1.3	378
	12/19/2018	1/22/2019	49	760	82.59	91.59	Saver Choice Max		34	-	1.5	809
	1/22/2019	2/19/2019	83	854	99.14	109.93	Saver Choice Max		28	-	2.6	937
	2/19/2019	3/19/2019	88	817	97.69	108.33	Saver Choice Max		28	-	2.6	905
	3/19/2019	4/18/2019	67	634	80.79	89.59	Saver Choice Max		30	-	2.2	701
	4/18/2019	5/17/2019	42	406	92.48	102.54	Saver Choice Max		29	-	2.9	448
	5/17/2019	6/18/2019	46	685	71.99	77.36	Saver Choice Max		32	-	0.8	731
	6/18/2019	7/19/2019	54	1404	112.28	119.57	Saver Choice Max		31	-	0.9	1458
	7/19/2019	8/19/2019	57	1539	119.78	127.49	Saver Choice Max		31	-	0.9	1596
	8/19/2019	9/19/2019	60	1482	116.98	124.56	Saver Choice Max		31	-	0.9	1542
	9/19/2019	10/21/2019	52	567	69.54	75.04	Saver Choice Max		32	-	1	619
			703	9917	1056.59	1151.68			368		18.7	10620

<b>Last 12 months</b>												
Winter Bills			392	3834		\$ 525.12			182		11.3	4226
Summer Bills			311	6083		\$ 626.56			186		7.4	6394
Total			703	9917		\$ 1,151.68			368		18.7	10620

		On-peak	Off-peak		Base Bill (excl adj/taxes)			Basic Svc	Super-peak	Demand	
<b>Saver Choice Max (R-3)</b>											
Winter Rates*		\$ 0.06376	\$ 0.05230					\$ 0.427		\$ 12.239	
Summer Rates*		\$ 0.08683	\$ 0.05230					\$ 0.427		\$ 17.438	
Winter Charges		\$ 24.99	\$ 200.52		\$ 441.52			\$ 77.71		\$ 138.30	
Summer Charges		\$ 27.00	\$ 318.14		\$ 553.60			\$ 79.42		\$ 129.04	
Total Charges		\$ 51.99	\$ 518.66		\$ 995.12			\$ 157.13		\$ 267.34	

<b>Premier Choice (R-Basic)</b>											
Winter Rates*								\$ 0.493			\$ 0.1239
Summer Rates*								\$ 0.493			\$ 0.1239
Winter Charges					\$ 613.46			\$ 89.73		\$ 523.73	
Summer Charges					\$ 884.11			\$ 91.70		\$ 792.41	
Total Charges					\$ 1,497.57			\$ 181.43		\$1,316.14	

<b>DIFFERENCE between R-3 and R-Basic</b>			Base Bill excluding adj/taxes	\$ (502.45)							
			Including Taxes and Fees	\$ (557.17)							

\*Source: <https://www.aps.com/en/Residential/Service-Plans/Compare-Service-Plans>



APS Plan Compare - Customer #2 - 10-22-19

Service address



Your current plan is Saver Choice  
Max, but based on your usage data,  
we recommend

Saver Choice Plus

See plan details >

Estimated annual cost	Estimated highest monthly bill
<b>\$1,719.17</b>	<b>\$303.57</b>

Annual savings from switching*	Estimated lowest monthly bill
<b>\$49.54</b>	<b>\$47.69</b>

Select plan to save



# Cost analysis on all plans

Recommended

## Saver Choice Plus

See plan details >

Estimated lowest  
monthly bill

**\$47.69**

Estimated highest  
monthly bill

**\$303.57**

Annual savings from  
switching\*

**\$49.54**

Estimated annual cost

**\$1,719.17**

Select plan

## Saver Choice

See plan details >

Estimated lowest  
monthly bill

**\$52.01**

Estimated highest  
monthly bill

**\$329.03**

Annual savings from switching\*      Estimated annual cost

**\$16.63**

**\$1,752.08**

Select plan

## *Your current plan*

### **Saver Choice Max**

See plan details >

Estimated lowest  
monthly bill

**\$41.20**

Estimated highest  
monthly bill

**\$329.65**

Estimated annual cost

-

**\$1,768.71**

You're currently on this plan

### **Premier Choice**

**See plan details** >

Estimated lowest  
monthly bill

**\$58.80**

Estimated highest  
monthly bill

**\$350.90**

Annual added cost by switching\*

**\$115.05**

**\$1,883.76**

Select plan

IMPORTANT: This plan comparison is calculated based on your historical energy usage, including your usage during our previous on-peak time-of-use hours of noon to 7pm, weekdays. The cost estimates do not assume or reflect any changes you might make to reduce your energy use during the on-peak hours for our new time-of-use service plans, which are from 3pm to 8pm, weekdays. Shifting your weekday energy use to before 3pm or after 8pm can help reduce your monthly bill compared to the estimates shown for the new time-of-use plans.

ATTENTION GRANDFATHERED SOLAR CUSTOMERS: Changing your service plan will void the terms of your currently grandfathered service plan, also known as net-metering. Please contact the APS Customer Technology Team if you would like to review your plan options.

# Cust #2 - R3 vs R2

Service address	Bill start date	Bill end date	On-peak kWh	Off-peak kWh	Usage charge	Billed amount	Rate plan	Meter num	Billing days	Super-peak kWh	kW	Total kWh
	9/21/2018	10/22/2018	34	985	85	94.69	Saver Choice Max		31	-	0.6	1019
	10/22/2018	11/21/2018	36	459	65.88	73.39	Saver Choice Max		30	-	1.7	495
	11/21/2018	12/21/2018	38	323	43.84	48.84	Saver Choice Max		30	-	0.6	361
	12/21/2018	1/24/2019	39	380	50.39	56.13	Saver Choice Max		34	-	0.7	419
	1/24/2019	2/21/2019	26	268	36.49	40.65	Saver Choice Max		28	-	0.5	294
	2/21/2019	3/21/2019	29	282	37.57	41.85	Saver Choice Max		28	-	0.5	311
	3/21/2019	4/22/2019	31	443	48.82	54.39	Saver Choice Max		32	-	0.6	474
	4/22/2019	5/21/2019	24	612	57.5	64.05	Saver Choice Max		29	-	0.5	636
	5/21/2019	6/20/2019	28	1212	97.75	104.67	Saver Choice Max		30	-	0.8	1240
	6/20/2019	7/23/2019	20	2148	139.18	147.69	Saver Choice Max		33	-	0.3	2168
	7/23/2019	8/21/2019	21	2375	149.72	158.72	Saver Choice Max		29	-	0.3	2396
	8/21/2019	9/21/2019	20	2010	130.95	139.03	Saver Choice Max		31	-	0.3	2030
			346	11497	943.09	1024.1			365		7.4	11843

Last 12 months												
Winter Bills			199	2155		\$ 315.25			182		4.6	2354
Summer Bills			147	9342		\$ 708.85			183		2.8	9489
Total			346	11497		\$ 1,024.10			365		7.4	11843

		On-peak	Off-peak		Base Bill (excl adj/taxes)			Basic Svc	Super-peak	Demand	
<b>Saver Choice Max (R-3)</b>											
Winter Rates*		\$ 0.06376	\$ 0.05230					\$ 0.427		\$ 12.239	
Summer Rates*		\$ 0.08683	\$ 0.05230					\$ 0.427		\$ 17.438	
Winter Charges		\$ 12.69	\$ 112.71		\$ 259.41			\$ 77.71		\$ 56.30	
Summer Charges		\$ 12.76	\$ 488.59		\$ 628.32			\$ 78.14		\$ 48.83	
Total Charges		\$ 25.45	\$ 601.30		\$ 887.73			\$ 155.85		\$ 105.13	

<b>Saver Choice Plus (R-2)</b>											
Winter Rates*		\$ 0.11017	\$ 0.07798					\$ 0.427		\$ 8.400	
Summer Rates*		\$ 0.13160	\$ 0.07798					\$ 0.427		\$ 8.400	
Winter Charges		\$ 21.92	\$ 168.05		\$ 306.32			\$ 77.71		\$ 38.64	
Summer Charges		\$ 19.35	\$ 728.49		\$ 849.50			\$ 78.14		\$ 23.52	
Total Charges		\$ 41.27	\$ 896.54		\$ 1,155.82			\$ 155.85		\$ 62.16	

<b>DIFFERENCE between R-3 and R-2</b>			Base Bill excluding adj/taxes	\$ (268.09)							
			Including Taxes and Fees	\$ (298.76)							

\*Source: <https://www.aps.com/en/Residential/Service-Plans/Compare-Service-Plans>